Remarks

This Amendment is being submitted in response to the Office Action mailed in the application on April 7, 2004. Claims 1, 5, 9, 12, 29 and 34-46 are pending. Claims 2-4, 6-8, 10-11, 13-28 and 30-33 were cancelled in a previously filed paper. Claim 29 has been amended.

The Examiner has indicated that claims 1, 5, 9, 12 and 34-43 are allowed. The Examiner has rejected claims 29 and 46 under 35 U.S.C. § 102(e) as anticipated by Tamura et al. (U.S. Patent No. 6,040,860). The Examiner has objected to claims 44 and 45 as being dependent on a rejected base claim, but has indicated that such claims would be allowable if rewritten in independent form.

With respect to claim 29, the Examiner argues

> "Tamura et al teaches in Figure 1 and Figure (9A) and Column 17, Lines 31-40 a signal processing apparatus which processes a signal outputted from an image pickup element (1001) having filters arranged to use plural kinds of colors, comprising: a color-suppression circuit (1005), provided for primary color signals or complementary color signals obtained from said image pickup element (1001), for color-suppressing said primary color signals or said complementary color signals in accordance with the level of luminance signal; a color signal processing circuit (1006) which processes output by said suppression circuit (1005). It is viewed by the Examiner that the gradation compensation circuit is a color suppression circuit."

Applicant has amended claim 29 to more clearly recite that the color-suppression circuit provided in the signal processing apparatus of the present invention is for color-suppressing primary color signals or complementary color signals obtained from the image pickup element so that a color-suppression is reduced as a level of luminance signal increases

in a high level part of a luminance signal over a predetermined value. The cited Tamura et al. patent fails to teach or suggest such a structure.

More specifically, with reference to expressions (4), (5) and (6) on Page 21 of applicant's specification, applicant's color suppression circuit performs color suppression on the basis of luminance signal Y and using a color gain coefficient k to multiply the color signals RGB. The coefficient k is calculated by the luminance level detecting circuit 70 in accordance with the relationship between the luminance signal Y and coefficient k shown in FIG. 5 (applicant's specification at Page 19, line 19, through page 20, line 14). As the color gain coefficient k becomes closer to "0", the level of each of the original color signals is decreased; as the color gain coefficient approaches "1", the RGB signals remain unchanged. Applicant's color suppression circuit thus eliminates color noise from the low luminance portion of each of the input RGB signals and also suppresses a false color caused by a saturated pixel of CCD 1 which contains a high luminance color (applicant's specification at Page 22, lines 12-17).

In contrast, while the Examiner has argued that the gradation compensation means 1005 in Tamura et al. corresponds to applicant's color-suppression circuit, applicant submits that the gradation compensation means of Tamura et al. is not a color-suppression circuit in the manner taught and claimed by applicant. Specifically, the gradation compensation circuit (1005 in Fig. 1; 110 in Fig. 2) in the device taught by Tamura et al., merely performs gradation compensation by multiplying RGB signals by a gradation compensation coefficient Φ obtained on the basis of luminance extracted by feature quantity extraction circuit 107. For example, when high luminance RGB is saturated, the gradation compensation circuit in Tamura et al. multiplies the coefficient with each of the RGB signals and, as a result,

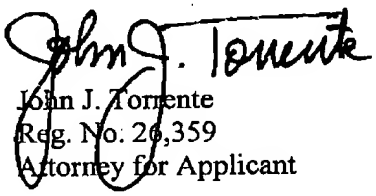
gradation is compensated by controlling gain evenly. The gradation compensation circuit in Tamura et al. thus results in signals R'G'B' different in color than the signals RGB before compensation and, therefore, the circuit does not perform color-suppression (Col. 9, lines 16-26), let alone a color-suppression which is reduced as a level of luminance signal increases in a high level part of a luminance signal over a predetermined value.

Applicant's amended independent claim 29, and its dependent claims 44-46, all of which recite the above feature in a color-suppression circuit, thus patentably distinguish over the Tamura et al. patent.

In view of the above, it is submitted that applicant's claims 29 and 44-46, as amended, patentably distinguish over the cited art of record. Accordingly, reconsideration of these claims and passage of same with the allowed claims to issue is respectfully requested. If the Examiner believes that an interview would expedite consideration of this Amendment or of the application, a request is made that the Examiner telephone applicant's counsel at (212) 682-9640.

Dated: July 7, 2004

Respectfully submitted,



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